

REMARKS

Applicant noted with appreciation that claim 8 is directed to the allowable subject matter.

Applicant also thanks the Examiner for pointing out the spelling error in claim 5, which has been corrected by the present amendment. Specifically, the word "channel" on line 4 of claim 5 was misspelled.

Additionally, the minor corrections of the specification were performed by this amendment.

Responding to the Examiner's objection to the title of the invention for insufficient descriptiveness, Applicant amend the title as following:"**PORTABLE TELEPHONE RADIO SET WITH INTERFERENCE WARNING DISPLAYED WITH INDICATION A RATE OF OCCURRENCE OF RETRANSMISSION**". The Examiner is respectfully requested to substitute the former title with presented with this amendment.

Claims 1-8 are currently pending in the application. By this amendment, claims 1 and 5 are amended. The listing of all claims in the application, showing a current status of all pending claims, starts on page 2 of this paper.

Support for the amendment to claim 1 is described on page 9, lines 8-20 of the specification. The amendment of claim 5 corrects a spelling error. No new matter is added. Reconsideration of the rejected claims in view of the above amendments and the following remarks is respectfully requested.

Claims 1-3 and 5 were rejected under 35 U.S.C. §103(a) as being unpatentable over Takahara et al. (U.S. Patent No.5,450,613) in view of Ishizuka et al. (U.S. Patent No. 5,805,666) and claim 4 were rejected in view of the same reference in further view of Hasegawa (U.S. Patent 6,073,024). Additionally, claims 6-7 were rejected also over the same reference in further view of Matsumoto (U.S. Patent No. 6,556,822). These rejections are respectfully traversed in the view of the present amendments and remarks.

The present invention resolves the problem of data deterioration due to radio wave interference in the portable telephone radio set connected to a terminal equipment of a personal computer. The externally connected terminal equipment can be a cause of the radio wave interference and deteriorate communication quality. Specifically, data communication affected

with interference cannot be recognized easily and need to be re-transmitted. The present invention allows the user to get a warning signal about an interference occurrence timely and to take effective countermeasures such as moving the portable telephone set closer to the terminal equipment. It should be specifically noted that in regard of communication data, recognition of deterioration is harder than for voice communication, wherein confirmation with the ear is very helpful.

The reference to Takahara et al. discloses a mobile communication equipment which detects and notifies a user when it is moved into or out of a service area. The Examiner erroneously states in the Office Action that the reference to Takahara et al. has an interference detection function. It should be respectfully noted that this reference does not recognize the problem resolved by the Applicant and does not provide any attempt to resolve this problem. First, Applicant teaches a portable telephone set which is connected to the personal computer with a terminal equipment. The terminal equipment actually causes an interference. Next, Applicant deals not only with voice communication as Takahara et al. does, but also with communication data for computers, which has different properties and qualities.

The Examiner said in the office action that the element 21 on Figure 1 of the Takahara et al. is an interference detection section. It should be noted that detection/notification unit 21 "includes detection means for detecting the state change between the communicable state of the equipment and the incommunicable state thereof on the basis of the analyzed result of the analyzer 7, and notification means for giving notification to the user of the equipment when the state change has been detected by the detection means." In other words the system to Takahara et al. detects that phone is in or out of a base station reachability, which is very different from the purpose of the Applicant's invention.

In order to explain why the reference to Takahara et al. schematically and functionally differs from the present invention the nature of the interference should be understood. The most simple definition: an interference is energy received with a communication signal. We don't need this because it deteriorates the signal. However, getting rid of the interference may be difficult. So, Applicant detects interference occurrence and re-transmits the signals affected with interference. The signal with interference has an extra energy that's why control unit 15 detects

affected channels as having higher level than predetermined. Meanwhile, the Takahara et al. detects only the presence of the base station signal.

For the simple reason that the reference to Takahara et al. does not recognize the problem of interference for communication data the schematical approach is different. Specifically, there is no terminal equipment connection 20, which causes the interference. Further, there is no external interface section 17, because there is no a connection to the personal computer. Furthermore, there is no indication which shows the interference warning and also includes a rate of occurrence of retransmission per unit data measured during the communication.

However, the reference to Ishuzuka et al. does not particularly teach interference recognition or warning. The apparatus taught by Ishuzuka et al. provides a display unit for displaying a message on the basis of an analyzed state at the reception unit. Therefore, when a failure of connection or maintenance of communication network is detected a predetermined message is displayed on the display unit. It should be noted, that teaching a detection of an abnormal condition, Ishuzuka et al. does not show the radio wave interference warning and displayed warning including a rate of occurrence of retransmission per unit data measured during the communication.

Applicant very specifically highlights on page 3, lines 20-23, that "...the conventional portable telephone radio set does not have a function for directly reporting deterioration of the communication state caused by radio wave interference to the user". The absence of this feature could increase of the communication time by unnecessary requests for retransmission, increase of the communication fee for those retransmissions. Therefore, claimed in claim 1 a warning section allows to attract an immediate attention of the user and as a result to reduce the number of the retransmissions and user fee.

To emphasize the distinction, the limitation of claim 1 in regard of warning feature was expended. Specifically, claim 1 as amended recites, "...a warning section for warning section for warning radio wave interference by audio or visual signals." As amended, it is respectfully submitted that claim 1 clearly defines over patents to Takahara et al. and Ishuzuka et al.

Claim 4 was rejected under 35 U.S.C. §103(a) as being unpatentable over Takahara et al. in view of Ishuzuka as applied to claims 1-3, 5 and further in view of Hasegawa (U.S. Patent

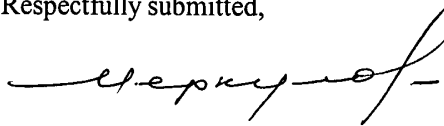
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6,073,024) and claims 5-7 were rejected under 35 U.S.C. 103(a) as being unpatentable over Uakanara in view of Ishuzuka et al and further in view of Matsumoto.

All these rejection are moot in view of the present amendment for the reasons that all claims in the specification depend from the presently amended claim 1 and no reference show warning of the interference occurrence.

In view of the foregoing amendments and remarks, Applicant submits that all of the claims as amended are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicant hereby makes a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041 (Whitham, Curtis & Christofferson, P.C.).

Respectfully submitted,



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